

Remarks

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and the following remarks. Claims 1-6, 8-9, 11-16 and 18-21 are pending in the application. Claims 1-16 and 18-21 are rejected. No claims have been allowed. Claims 1, 8, 9, and 16 are independent. By this amendment, claims 7, 13, and 19 have been canceled without prejudice.

Cited Art

The Action cites Mancisidor et al. (US Patent 6,745,172 B1) ("Mancisidor").

Claim Rejections under 35 U.S.C. § 102

The Action rejects claims 1, 4, 6, 9, 12, 14, and 16-19 under 35 USC 102(c) as being anticipated by Mancisidor. Applicants respectfully submit the claims are allowable over the cited art. For a 102(c) rejection to be proper, the cited art must show each and every element as set forth in a claim. (*See* MPEP § 2131.01.)

Amended claim 1.

Mancisidor fails to anticipate, e.g., the claim 1 language below:

evaluating the input data to determine a prioritized set of network solutions suitable for the group of computers and their environment out of a set of possible network solutions, the set of possible network solutions including at least one hybrid solution employing more than one networking topology type, *the evaluating comprising:*

using at least some of the gathered input data, applying physical layout pattern heuristics to determine which physical pattern the computers are in,
using at least some of the gathered input data, applying hardware gateway possibility heuristics to determine whether the solution can include a hardware gateway,

if the solution does not include a hardware gateway, then using at least some of the gathered input data, applying PC heuristics to determine which PC would be the best suited to be an internet connection sharing machine,

using at least some of the gathered input data, heuristically applying connection media heuristics to determine if it is possible to include wireless in any of the solutions, if it is possible to use Ethernet between rooms if PCs are in different rooms, if it is possible to use HPNA if PCs are in different rooms, and if it is possible to use PLC if PCs are in different rooms, and

using at least output from the hardware gateway possibility heuristics, output from the PC heuristics, and output from the connection media heuristics,

applying possible network solutions heuristics to determine a prioritized set of possible network solutions; [Emphasis added.]

The claim has been amended, above, such that the cited reference, Mancisidor, does not teach or suggest the amended claim language. As applicants understand, Mancisidor does not discuss determining network solutions using the above cited language.

As a specific example, Mancisidor does not teach or suggest *using at least some of the gathered input data, applying hardware gateway possibility heuristics to determine whether the solution can include a hardware gateway.*

The Office Action concedes (when rejecting similar language in claim 7) that the primary citation to Mancisidor does not explicitly disclose the above-referenced language. [Office Action, page 13.] Nonetheless, the Office Action rejects claim 7, contending that the necessary disclosure is inherently included in Mancisidor. [Office Action, page 13.] This contention is respectfully traversed.

The rule for determining inherency is as follows: “To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” [MPEP 2112.IV.] Applicants respectfully submit that the extrinsic evidence in Mancisidor does **not** make clear that the limitations of claim 1, above, are necessarily present in the reference, but rather teaches away from such limitations.

The Action cites to Mancisidor, Figs. 19-26, and col. 12, lines 5-26, to indicate inherency of the above claim language. However, rather than the small-scale setup for “houses and small offices that run multiple computers” [Specification, p. 1 line 7], Mancisidor describes a much more complex system with completely different heuristics (fuzzy logic, minimum spanning trees, neural nets) designed to determine the amount of latency in network transactions for an allotted amount of bandwidth. [Mancisidor 25:57-63.] Put another way, the expert system determines how much bandwidth is necessary across multiple sites to produce an acceptably fast network connection. For example, Mancisidor in Fig. 13 discusses using an expert system that creates a suggested network by randomly selecting an initial configuration (box 1350), transforming the selected configuration (box 1352), calculating a rating (box 1354) and repeating. [Mancisidor at 20:10-67.] The configurations

concern node-to-node linkages based on bandwidth needs. [See Figures 18-26 and associated text; *also see* Mancisidor at 20:10-67.] The rating concerns bandwidth-latency vs. cost issues. [Mancisidor, 26:27-55.]

The portion of Mancisidor cited to prove inherency of the above-cited claim 1 language discusses using a minimum spanning tree to determine the latency-bandwidth-cost between network node connections, and thus calculates the amount of network capacity required between different nodes. [Mancisidor at 28:56 to 35:20, Figures 19 to 26.] Capacity calculations do not imply a hardware gateway at all, as achieving appropriate capacity across network links can be handled in many different ways. As an inherency argument requires the missing descriptive matter is **necessarily present** in the thing described in the reference, and as determining if a hardware gateway is a possibility is certainly not necessarily present, Mancisidor does not inherently teach or suggest the claim 1 language *using at least some of the gathered input data, applying hardware gateway possibility heuristics to determine whether the solution can include a hardware gateway.*

As Mancisidor does not anticipate hardware gateways, it is even more improbable that Mancisidor would have, as “necessarily present” yet another feature that relies on the missing hardware gateways (an implication of an implication), and as such does not anticipate the claim 1 language *“if the solution does not include a hardware gateway, then using at least some of the gathered input data, applying PC heuristics to determine which PC would be the best suited to be an internet connection sharing machine.”* The large scale networks envisioned by Mancisidor also teach away from an installation with a modest “internet connection sharing machine.”

For at least the above reasons, claim 1 is in condition for allowance.

Accordingly, favorable reconsideration and withdrawal of the rejection of independent claim 1 under 35 U.S.C. §102 is respectfully requested.

Claims 4 and 6.

Claims 4 and 6 ultimately depend from allowable claim 1 and so should themselves be allowable. Claims 4 and 6 also present novel combinations over Mancisidor.

Claim 9.

Mancisidor fails to anticipate, e.g., the claim 9 language:

programming code for evaluating the input data to determine a prioritized set of network solutions suitable for the group of computers and their environment out of a set of possible network solutions, the set of possible network solutions including at least one *hybrid solution employing more than one networking topology type*... [Emphasis added.]

The Office cites to three different sections of Mancisidor to teach or suggest the above language. Each will be discussed in turn.

The Office first cites to Mancisidor 4:5-9, quoted below.

The method also includes identifying a recommended data network solution from among the data network configuration solutions based on the ratings of the data network configuration solutions.

Mancisidor, above, discusses choosing a recommended network from among the different possible networks. It does not discuss what form the networks take, and does not discuss or even hint at specifics of those solutions, let alone the claim 9 language of a *hybrid solution employing more than one networking topology type*.

The Office then cites to Mancisidor 31:57-62, quoted below.

That is to say, some of the nodes may not be connected to one another at all. In addition, the size of the particular links between those nodes that do need to communicate with one another is appropriately chosen to accommodate the needs of that particular link. Therefore, many of the links may very well have different capacities. Mancisidor 31:57-62.

Here, Mancisidor discusses the *capacity* of a given link; that is, the bandwidth of the link. Mancisidor 36:31-32. Mancisidor does teach that a network can have individual links with different bandwidths. This is completely different than the networking topology type, and does not teach or suggest a *hybrid solution employing more than one networking topology type*.

The Office also cites to Mancisidor, Fig. 22, box 2210. This box states “provide link between each pair of sites (that need to communicate).” Fig. 22 also has a diagram of nodes that are connected (shown with black lines) and nodes that are not connected (shown with dotted lines.) A picture of network interconnections does not teach, suggest, or infer networking topology type, and does not teach or suggest a *hybrid solution employing more than one networking topology type*.

As a separate reason for patentability, amended claim 9 requires:

- 1) programming code for identifying a primary PC by:
 - a) calculating a PC score for each computer in the group of computers based on at least computer modem type, mobility type and operating system, and
 - b) choosing the primary PC based on the PC score for each computer; ...

3) using the location of the computers in the environment, connection media availability and the identified primary PC, determining possible network topologies...

The Office Action concedes (when rejecting similar language in claim 13) that the primary citation to Mancisidor does not explicitly disclose the above-referenced language. [Office Action, page 12.] Nonetheless, the Office Action rejects claim 13, stating "However, it would have been obviously included that when configuring a network of computers that the connection type, operating system, and computer type must be provid[ed] in order to properly recommend the appropriate products and/or services, determining whether the identified host computer meets the minimum requirements, and avoid any compatibility issues." [Office Action, page 13.] This contention is respectfully traversed.

Mancisidor does not discuss a primary PC (to Applicant's knowledge), and the Action has failed to provide a reference to such a PC. As such, the Action has also failed to discuss a heuristic for selection of a (nonexistent) primary PC. As Mancisidor does not discuss selection heuristics for a primary PC, Mancisidor, further, cannot teach or suggest a *specific* selection heuristic. Thus, it would not be obvious to identify a primary PC based on the specific heuristic of claim 9 recited below.

- 1) programming code for identifying a primary PC by:
 - a) calculating a PC score for each computer in the group of computers based on at least computer modem type, mobility type and operating system, and
 - b) choosing the primary PC based on the PC score for each computer; ...
- 3) using the location of the computers in the environment, connection media availability and the identified primary PC, determining possible network topologies...

Accordingly, favorable reconsideration and withdrawal of the rejection of independent claim 9 under 35 U.S.C. §102 is respectfully requested.

Claims 12 and 14.

Claims 12 and 14 ultimately depend from allowable claim 9 and so should themselves be allowable. Claims 12 and 14 also present novel combinations over Mancisidor. Such action is respectfully requested.

Claim 16.

Mancisidor fails to anticipate, e.g., the claim 16 language:

wherein the network solution output generator comprises a network diagram generator, a shopping list generator and a setup instructions generator for dynamically generating a network diagram, a shopping list of the network products and setup instructions for constructing the network, respectively.

The Office Action concedes that the primary citation to Mancisidor does not explicitly disclose the above-referenced language. [Office Action, page 7.] Nonetheless, the Office Action rejects independent claim 16, contending that the necessary disclosure is inherently included in Mancisidor. [Office Action, page 7.] This contention is respectfully traversed.

The rule for determining inherency is as follows: “To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” [MPEP 2112.IV.] Applicants respectfully submit that the extrinsic evidence in Mancisidor **does not** make clear that the limitations of claim 16, above, are necessarily present in the reference, but rather teaches away from such limitations.

The Action cites to Mancisidor Figs. 2, 4, 9, 10 15, 16, 18, and 22 to indicate inherency of the above claim language. The cited portion of Fig. 2 shows an Agent interface (290-293) connected, eventually, to an expert system 231 and a product service database 230. The other references also discuss the product database, and cost factors. However, the product database is used in terms of products available to be used in creation of the recommended network products and services. [See, e.g., Mancisidor, Abstract and Fig. 12, at 1214.] The cost calculations are discussed in terms of the bandwidth and latency that can be gained between nodes for a given cost, not on the specific prices of specific hardware. The distinctions here have to do with point of view; Mancisidor is creating a complex system, using as one of the input variables a desired cost.

However, the existence of a product database and cost analysis certainly does not also imply further steps taught by Mancisidor toward purchasing the network. For example, the system is explicitly called an “interactive product selection/recommendation system,” not a sales system. [Mancisidor, abstract, 10:25.]

As the reference does not explicitly teach purchasing the network, it does not inherently teach features of the purchase such as “a shopping list of network products,” “a network diagram,” and

“setup instructions for constructing the network.” As an inherency argument requires that the missing matter be necessarily present, Mancisidor does not anticipate, e.g., the claim 16 language “a network diagram,” a “shopping list of network products,” and “setup instructions for constructing the network.” For at least this reason, claim 16 is in condition for allowance.

Mancisidor also does not teach or suggest the amended claim 16 language, below.

using at least some of the gathered input data, heuristically applying physical layout pattern heuristics to determine which physical pattern the computers are in,

using at least some of the gathered input data, heuristically applying hardware gateway possibility heuristics to determine whether the solution can include a hardware gateway,

if the solution does not include a hardware gateway, then using at least some of the gathered input data, applying PC heuristics to determine which PC would be the best suited to be an internet connection sharing machine,

using at least some of the gathered input data, heuristically applying connection media heuristics to determine if it is possible to include wireless in any of the solutions, if it is possible to use Ethernet between rooms if PCs are in different rooms, if it is possible to use HPNA if PCs are in different rooms, and if it is possible to use PLC if PCs are in different rooms, and

using at least output from the hardware gateway possibility heuristics, output from the PC heuristics, and output from the connection media heuristics, heuristically applying possible network solutions heuristics to determine a prioritized set of possible network solutions;

In the interest of brevity, using the same reasoning used to show the patentability of claim 1, these features of claim 16 are, similarly, patentable.

Accordingly, for at least the above reasons, favorable reconsideration and withdrawal of the rejection of independent claim 16 under 35 U.S.C. §102 is respectfully requested.

Claims 18 and 20.

Claims 18 and 20 ultimately depend from allowable claim 16 and so should themselves be allowable. Claims 18 and 20 also present novel combinations over Mancisidor. Such action is respectfully requested.

Claim 21.

Mancisidor fails to anticipate, e.g., the claim 21 language:

The computer-based interactive network guide system of claim 19 wherein the shopping list generator omits products that are already owned by the user.

The Office Action concedes that the primary citation to Mancisidor does not explicitly disclose the above-referenced language. [Office Action, page 9.] Nonetheless, the Office Action rejects claim 21, contending that such a disclosure is “inherently included in that it would be illogical to recommend products that the user already owns since the user may either be upgrading or expanding the network, in the latter case it is impossible to expand the network with just one product.” [Office Action, page 9.] This contention is respectfully traversed.

The rule for determining inherency is as follows: “To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” [MPEP 2112.IV.] Applicants respectfully submit that the extrinsic evidence in Mancisidor does **not** make clear that the limitations of claim 21, above, are necessarily present in the reference, but rather teaches away from such limitations.

First, in its extensive discussion of parameters for the system, Mancisidor does not disclose a shopping list, as conceded by the Action on page 7. So, any inherency argument based on the existence of a shopping list is at two removes from the Patent disclosure itself.

Further, rather than the Action’s contention that it would be “illogical to recommend products that the user already owns,” rather than being illogical, such recommendations may have value. For example, generating a list with products that the customer already possesses may be seen as a further sales opportunity; for example, a sales person could attempt to convince the customer that certain already owned items should be replaced. In showing inherency, “[i]t is not sufficient to show that a certain thing may result from a given set of circumstances,” rather, “Inherency may not be established by probabilities or possibilities.” [*Id.*] Even, if for argument’s sake, Mancisidor is seen to inherently teach generating a shopping list, such a list absolutely does not further inherently exclude products that the customer already owns, for at least the reason that inclusion of such products may present further sales opportunities.

For at least this reason, claim 21 is in condition for allowance. Accordingly, favorable

reconsideration and withdrawal of the rejection of claim 21 under 35 U.S.C. §102 is respectfully requested.

Patentability of Claims 2-3, 5, 7, 8, 11, 13, and 15 Under 35 U.S.C. § 103(a)

The Action rejects claims 2-3, 5, 8, 11, and 15 under 35 U.S.C. § 103(a) as unpatentable over Mancisidor.

Claims 2, 3, and 5, and 7.

Claims 2, 3, and 5 ultimately depend from allowable claim 1 and so should themselves be allowable. Claims 2, 3, and 5 also present novel combinations over Mancisidor.

Claim 8.

Mancisidor fails to teach or suggest, e.g., the claim 8 language below:

heuristically identifying the set of suitable network solutions out of the set of possible network solutions based on at least a layout of the computers in separate locations in the environment, connection media availability at the locations, and computer type, *comprising:*

- 1) identifying a primary PC by:
 - a) calculating a PC score for each computer in the group of computers based on at least computer modem type, mobility type and operating system, and*
 - b) choosing the primary PC based on the PC score for each computer;**
- 2) determining whether a hardware gateway can be used;*
- 3) using the location of the computers in the environment, connection media availability and the identified primary PC, determining possible network topologies; and*
- 4) using the determined possible network topologies, determining a possible network solution heuristic to identify and prioritize a set of suitable network topologies.... [Emphasis added.]*

The claim has been amended, above, such that the cited reference, Mancisidor, does not teach or suggest the amended claim language. In the interest of brevity, using the same reasoning used to show the patentability of claim 9, claim 8 can also be seen to be patentable. At least for this reason, claim 8 is in condition for allowance. Accordingly, favorable reconsideration and withdrawal of the rejection of independent claim 8 under 35 U.S.C. §103(a) is respectfully requested.

Claims 11 and 15.

Claims 11 and 15 ultimately depend from allowable claim 9 and so should themselves be allowable. Claims 11 and 15 also present novel combinations over Mancisidor. Such action is respectfully requested.

Support for Amendments and New Claims

The amendments and new claims are supported by the Specification and Figures as initially filed. In addition, the following examples of support are given: Specification, page 4, lines 8-17; page 9, lines 12-15; page 13, line 4 to page 14 line 16; page 15 line 9 to page 16 line 2; page 19 lines 11-20, and Figures 15 and 16. No new matter was added thereby.

Amendments to the Specification

The amendments to the specification was to replace the first instance of an acronym with its complete phrase, and to fix a typographical error. No new matter was added thereby.

Interview Request

If the claims are not found by the Examiner to be allowable, the Examiner is requested to call the undersigned attorney to set up an interview to discuss this application.

Conclusion

The claims in their present form should be allowable. Such action is respectfully requested.

Respectfully submitted,

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